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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/508,771

03/16/2000

JINKO KIMURA

ASAMU0005

8406

24203

7590

08/21/2009

GRIFFIN & SZIPL, PC

SUITE PH-1

2300 NINTH STREET, SOUTH

ARLINGTON, VA 22204

EXAMINER

WALKE, AMANDA C

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

08/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

1 RECORD OF ORAL HEARING
2
3 UNITED STATES PATENT AND TRADEMARK OFFICE
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5
6 BEFORE THE BOARD OF PATENT APPEALS
7 AND INTERFERENCES
8

9
10 Ex parte JINKO KIMURA,
11 CHIKARA ISHIKAWA,
12 YOUJI TANAKA,
13 SHINJI TAKANO,
14 and YOSHITAKA MINAMI
15

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17 Appeal 2009-003250
18 Application 09/508,771
19 Technology Center 1700
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22 Oral Hearing Held: June 10, 2009
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26 Before BRADLEY R. GARRIS, BEVERLY A. FRANKLIN, and
27 LINDA M. GAUDETTE, Administrative Patent Judges
28

29 ON BEHALF OF THE APPELLANT:
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1 The above-entitled matter came on for hearing on Wednesday,
2 June 10, 2009, commencing at 1:42 p.m., at the U.S. Patent and Trademark
3 Office, 600 Dulany Street, Alexandria, Virginia, before Victoria L. Wilson,
4 Notary Public.

5 THE USHER: Calendar number 25. Appeal number 2009-3250. Mr.
6 Szipl.

7 JUDGE GARRIS: Thank you.

8 MR. SZIPL: Good afternoon, ladies and gentlemen, members of the
9 Board.

10 May I hand you some exhibits just from the file that I would like to
11 refer to? They are simply copies of the figures in this case.

12 JUDGE GARRIS: That would be fine and, in the process, I wonder if
13 you could give our court reporter your business card, if you have one.

14 (Discussion off the record.)

15 JUDGE GARRIS: Before you begin, would you introduce your
16 colleague, please.

17 MR. SZIPL: Yes. My colleague, Scott Ashton, is an associate at my
18 firm.

19 MR. ASHTON: Your Honors, nice to meet you.

20 MR. SZIPL: He is here to assist me today.

21 JUDGE GARRIS: Welcome to the Board. Mr. Szipl, as you know,
22 you have about 20 minutes. Please begin.

23 MR. SZIPL: Yes. I don't believe that I will be needing the entire 20
24 minutes.

25 I have handed to you, members of the Board, administrative law
26 judges, a copy of figures A1 -- figures 1A and 1B of the application at issue

1 here, which is the case of Kimura, et al., serial number 09/508,771, filed
2 March 16th, 2000.

3 To begin, I would like to simply discuss the evolution of the presently
4 claimed invention with reference to these two figures.

5 All of the claims of the present invention relate to a photosensitive
6 film having three principal elements: A, a support film; B, a photosensitive
7 resin composition containing photo-sensitive layer; and, C, a protecting film.
8 And all of the independent claims require that the protecting film have a
9 particular physical property, mainly that fish eyes having a diameter of at
10 least 80 micrometers do not exceed 5 fish eyes per meter squared when
11 measured at 100 times optical magnification.

12 A representation of the claimed photographic film is shown in figure
13 1A, in which, A, the support film is indicated as 1; B, the photo- sensitive
14 layer is indicated as 2; and, C, the protecting film is indicated as 3.

15 The invention arose when the inventors of the present application
16 discovered that certain defects, which they call fish eyes and which are
17 defined in the specification at pages 3 and 13, caused deficiencies in
18 photographic patterns and wire patterns created thereby with these
19 photosensitive films.

20 Background of the invention is photo-sensitive films of this type are
21 used in the etching of wire patterns and electrical patterns in electrical
22 devices.

23 And how these films are used, for example, one would take a film,
24 such as that depicted in figure 1A, remove the protective covering, 3, attach
25 or adhere the remaining layers 2 and 1 to a material to be etched, thereafter
26 the film would be exposed and either the exposed portion or the nonexposed

1 portion, depending on whether this was a positive or negative film, would be
2 washed away by an appropriate solvent. Thereafter, the material would be
3 etched and a wire pattern would result.

4 As I was saying, this invention resulted when the Inventors discovered
5 that an unacceptable level of defects were being discovered in the wire
6 pattern and there were broken wires, as well.

7 Upon serious investigation, it was discovered that defects invisible, in
8 part, to the naked eye were in the protecting film, C in the claims and 3 in
9 the figure, resulted in the photosensitive resin layer, B, having air voids and
10 these air voids that are result of the defects in the protecting film, in turn,
11 caused defects in the resulting electrical product.

12 Now, the fish eyes are defined in the present specification, for
13 example, on page 3 and 13 of the specification. I'll read from that portion of
14 the specification.

15 In the specification, it states that "a fish eye means an unmelted or
16 deteriorated region of the raw material which has been taken into the film at
17 the time of thermal melting the raw material and forming it into a film."

18 These fish eyes are not merely optical defects, they are physical
19 defects on the surface of the film which, of course, need to be magnified in
20 order to be seen, and the elimination of which result in the superior
21 properties of the present invention. All of the independent claims require
22 this reduced amount of fish eyes in the claims.

23 Referring back to the claims, independent claim 1 requires the
24 limitation I read before of a less than a certain amount -- less than 5 fish eyes
25 per meter squared of a size of 80 microns or greater when measured at 100
26 times optical magnification.

1 Claim 7, for example, refers to the protecting film having a particular
2 thickness. Claims 36 and 38, for example, refer to the photosensitive film
3 having a thickness of between 5 and 30 micrometers.

4 That particular limitation, I'm bringing that to the attention of the
5 Board because it is clear from the record and shown by the Inventor in this
6 case that when the photosensitive film has a particular size within that range,
7 the effect of the fish eyes is particularly large so that the advantageous
8 improvement of the present invention is also large.

9 The last group of independent claims that I would like to draw the
10 attention of the Board to are claims 44 through 46, and in that case, the
11 claims require that the material of the protective film, C, be resin that is
12 filtered after thermal melting in order to remove the unmelted and
13 deteriorated regions of the raw materials that lead to and are defined as
14 causing the fish eyes in the present claim.

15 All right. Having reviewed the invention generally, I will just briefly
16 address the outstanding rejections.

17 All outstanding rejections have as their basis a combination of two
18 basic references, the Taguchi patent and the Mannion patent. I'm going to
19 restrict my oral argument to those two references since I believe that all
20 rejections can be dealt with in a rebuttal of those particular references.

21 The Taguchi patent does disclose a three-part photosensitive film
22 having sport film, a photosensitive layer and protecting film, however,
23 nothing in that reference discloses that the protecting film must have the
24 physical properties that are required by the claims, namely, that fish eyes
25 having a diameter of 80 micrometers or greater do not exceed a population
26 of 5 or more per meter squared when observed by 100 times magnification.

1 And, in fact, there is evidence in the present case in the form of the
2 second declaration of Dr. Ishikawa in which Dr. Ishikawa states that
3 conventional films as disclosed in Taguchi would not have the claimed
4 required low population of fish eyes.

5 In fact, conventional films have thousands of these microscopic
6 defects per meter squared rather than what the claims require.

7 The second reference in the combination of the major 103 rejection is
8 the Mannion reference and, again, Mannion – and the point I would like to
9 make in this argument today is that Mannion does not make up for the
10 defects of Taguchi and even a combination of Mannion and Taguchi does
11 not achieve the claimed invention.

12 Mannion, for example, does not at all deal with the problem of fish
13 eyes as defined in the present specification, which are unmelted or
14 deteriorated regions of raw material in the process.

15 What Mannion deals with strictly are white points or bubbles in
16 injected melted articles. White points or bubbles are simply entrapped gas
17 that are formed in articles made from injected molding and have nothing to
18 do with the fish eye problem.

19 Moreover, the secondary reference, Mannion, does not deal with
20 films, and the present invention clearly is a photo sensitive film having three
21 elements, A, B and C, as described before. So there is nothing in Mannion
22 that, when added to Taguchi, would produce the claimed invention.

23 JUDGE GAUDETTE: Why is it that you feel that Mannion does not
24 deal with films?

25 MR. SZIPL: Because all of the examples deal with injected articles
26 and all of the discussion in the examples deal with removing bubbles from

1 injected articles.

2 And, as I said, the -- the point that your Honor made is well taken
3 because it is, as I said before, at a heart of the present invention the
4 discovery that microscopic defects are to blame for poor performance of
5 these photosensitive films in making electrical articles and it is that
6 discovery, that particular discovery, which is nowhere found or suggested in
7 any of the prior art of record in this case, that discovery of that problem
8 which led to the solution that is recited in the claims.

9 And I believe I have made all the points that I wish to make.

10 JUDGE GARRIS: Judge Franklin, do you have any questions? Judge
11 Gaudette, any further questions?

12 JUDGE GAUDETTE: No.

13 JUDGE GARRIS: No? No further questions, then, sir.

14 MR. SZIPL: Thank you, ladies and gentlemen.

15 JUDGE GARRIS: Thank you very much. We appreciate your
16 coming in and helping us with this case today.

17 Whereupon, the proceedings at 1:56 p.m. were concluded.